



Bill Barrett Corporation

Bill Barrett Corp.

Weld Co., CO

Sec.22-T5N-R62W

Anschutz State 5-62-22-4841C2

Wellbore #1

Plan: Design #1

Standard Planning Report

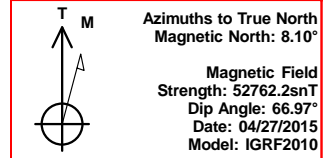
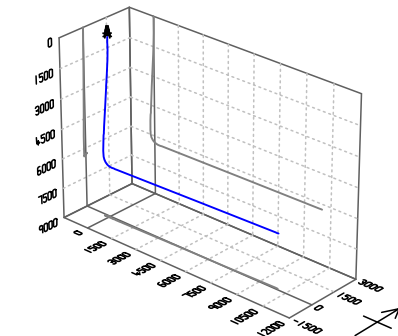
27 April, 2015

Archer



Bill Barrett Corp.
Project: Weld Co., CO
Site: Sec.22-T5N-R62W
Well: Anschutz State 5-62-22-4841C2
Wellbore: Wellbore #1
Design: Design #1
Lat: 40° 23' 1.529 N
Long: 104° 19' 6.971 W
Pad GL: 4690.00
KB: Well @ 4706.00usft

Archer



SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSec	Annotation
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
900.00	0.00	0.00	900.00	0.00	0.00	0.00	0.00	0.00	Start Build 2.00
1091.45	3.83	247.30	1091.31	-2.47	-5.90	2.00	247.30	-5.94	Start 4136.16 hold at 1091.45 MD
5227.61	3.83	247.30	5218.23	-109.05	-260.71	0.00	0.00	-262.68	Start Drop -2.00
5419.06	0.00	0.00	5409.54	-111.52	-266.61	2.00	180.00	-268.63	Start 500.03 hold at 5419.06 MD
5919.09	0.00	0.00	5909.57	-111.52	-266.61	0.00	0.00	-268.63	Start Build 12.00
6674.94	90.70	88.94	6387.00	-102.59	216.62	12.00	88.94	214.69	Start 9789.73 hold at 6674.94 MD
16464.67	90.70	88.94	6267.00	78.17	10003.95	0.00	0.00	10003.68	TD at 16464.67

WELL DETAILS: Anschutz State 5-62-22-4841C2

+N/-S	+E/-W	Northing	Ground Level: Easting	Latitude	Longitude	Slot
0.00	0.00	1384835.785	3329100.393	40° 23' 1.529 N	104° 19' 6.971 W	

PROJECT DETAILS: Weld Co., CO

Geodetic System: US State Plane 1983
Datum: North American Datum 1983
Ellipsoid: GRS 1980
Zone: Colorado Northern Zone

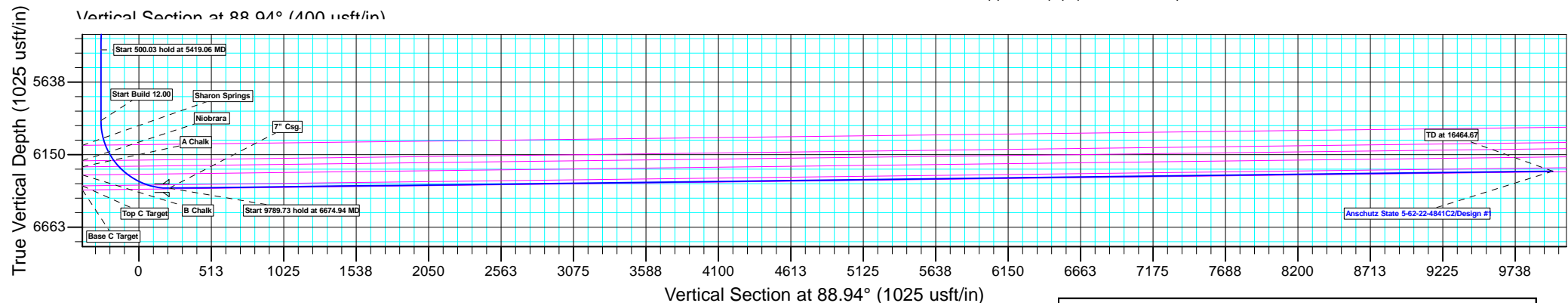
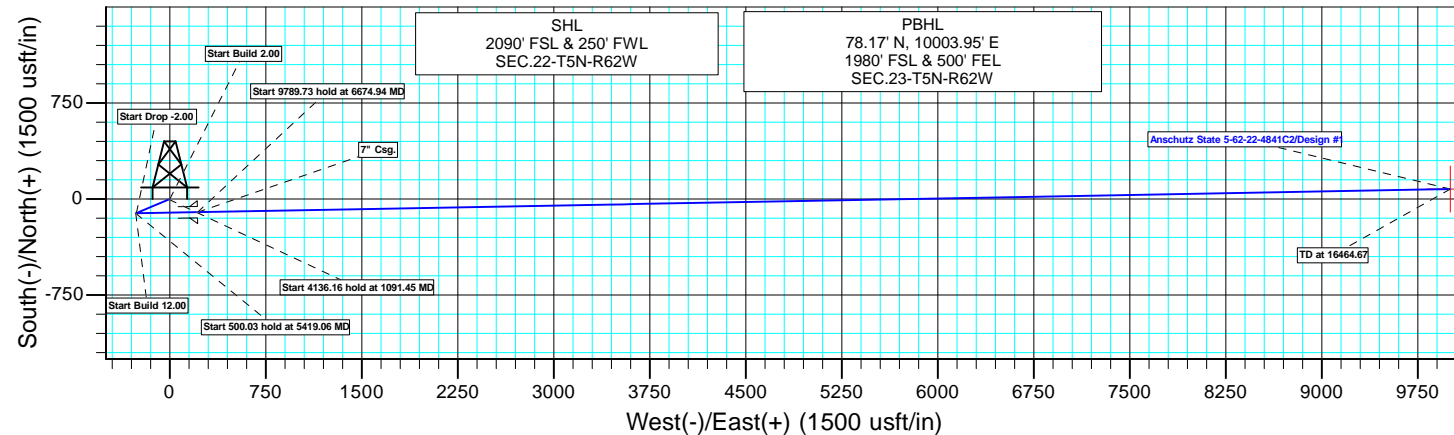
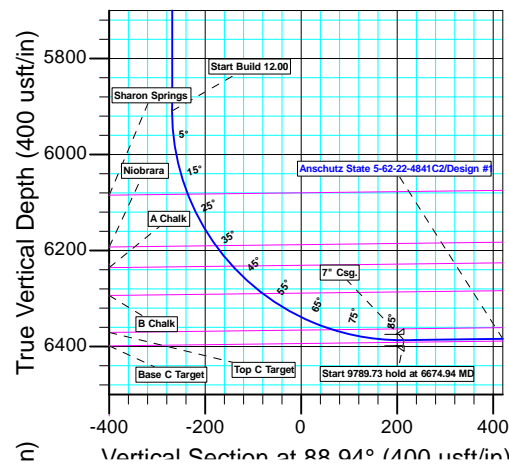
System Datum: Mean Sea Level

CASING DETAILS

TVD	MD	Name
6387.00	6674.94	7" Csg.

WELLBORE TARGET DETAILS (LAT/LONG)

Name	TVD	+N/-S	+E/-W	Latitude	Longitude	Shape
Anschutz State 5-62-22-4841C2 tgt	6267.00	78.17	10003.95	40° 23' 2.281 N	104° 16' 57.691 W	Point



Plan: Design #1 (Anschutz State 5-62-22-4841C2/Wellbore #1)

Created By: Ricky Osburn Date: 10:43, April 27 2015

Database:	EDMDBBW	Local Co-ordinate Reference:	Well Anschutz State 5-62-22-4841C2
Company:	Bill Barrett Corp.	TVD Reference:	Well @ 4706.00usft
Project:	Weld Co., CO	MD Reference:	Well @ 4706.00usft
Site:	Sec.22-T5N-R62W	North Reference:	True
Well:	Anschutz State 5-62-22-4841C2	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

Project	Weld Co., CO		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	Colorado Northern Zone		

Site	Sec.22-T5N-R62W				
Site Position:		Northing:	1,387,395.099 usft	Latitude:	40° 23' 26.801 N
From:	Lat/Long	Easting:	3,329,229.538 usft	Longitude:	104° 19' 4.861 W
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16"	Grid Convergence:	0.76 °

Well	Anschutz State 5-62-22-4841C2					
Well Position	+N/-S	-2,557.36 usft	Northing:	1,384,835.785 usft	Latitude:	40° 23' 1.529 N
	+E/-W	-163.25 usft	Easting:	3,329,100.393 usft	Longitude:	104° 19' 6.971 W
Position Uncertainty		0.00 usft	Wellhead Elevation:	0.00 usft	Ground Level:	4,690.00 usft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	2015/04/27	8.10	66.97	52,762

Design	Design #1			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.00	0.00	0.00	88.94

Plan Sections										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
900.00	0.00	0.00	900.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,091.45	3.83	247.30	1,091.31	-2.47	-5.90	2.00	2.00	0.00	247.30	
5,227.61	3.83	247.30	5,218.23	-109.05	-260.71	0.00	0.00	0.00	0.00	
5,419.06	0.00	0.00	5,409.54	-111.52	-266.61	2.00	-2.00	0.00	180.00	
5,919.09	0.00	0.00	5,909.57	-111.52	-266.61	0.00	0.00	0.00	0.00	
6,674.94	90.70	88.94	6,387.00	-102.59	216.62	12.00	12.00	0.00	88.94	Anschutz State 5-62-2
16,464.67	90.70	88.94	6,267.00	78.17	10,003.95	0.00	0.00	0.00	0.00	Anschutz State 5-62-2

Database:	EDMDBBW	Local Co-ordinate Reference:	Well Anschutz State 5-62-22-4841C2
Company:	Bill Barrett Corp.	TVD Reference:	Well @ 4706.00usft
Project:	Weld Co., CO	MD Reference:	Well @ 4706.00usft
Site:	Sec.22-T5N-R62W	North Reference:	True
Well:	Anschutz State 5-62-22-4841C2	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00	0.00
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00
600.00	0.00	0.00	600.00	0.00	0.00	0.00	0.00	0.00	0.00
700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.00	0.00	0.00
800.00	0.00	0.00	800.00	0.00	0.00	0.00	0.00	0.00	0.00
Start Build 2.00									
900.00	0.00	0.00	900.00	0.00	0.00	0.00	0.00	0.00	0.00
1,000.00	2.00	247.30	999.98	-0.67	-1.61	-1.62	2.00	2.00	0.00
Start 4136.16 hold at 1091.45 MD									
1,091.45	3.83	247.30	1,091.31	-2.47	-5.90	-5.94	2.00	2.00	0.00
1,100.00	3.83	247.30	1,099.84	-2.69	-6.43	-6.47	0.00	0.00	0.00
1,200.00	3.83	247.30	1,199.62	-5.26	-12.59	-12.68	0.00	0.00	0.00
1,300.00	3.83	247.30	1,299.39	-7.84	-18.75	-18.89	0.00	0.00	0.00
1,400.00	3.83	247.30	1,399.17	-10.42	-24.91	-25.10	0.00	0.00	0.00
1,500.00	3.83	247.30	1,498.95	-13.00	-31.07	-31.30	0.00	0.00	0.00
1,600.00	3.83	247.30	1,598.72	-15.57	-37.23	-37.51	0.00	0.00	0.00
1,700.00	3.83	247.30	1,698.50	-18.15	-43.39	-43.72	0.00	0.00	0.00
1,800.00	3.83	247.30	1,798.28	-20.73	-49.55	-49.93	0.00	0.00	0.00
1,900.00	3.83	247.30	1,898.05	-23.30	-55.71	-56.13	0.00	0.00	0.00
2,000.00	3.83	247.30	1,997.83	-25.88	-61.87	-62.34	0.00	0.00	0.00
2,100.00	3.83	247.30	2,097.61	-28.46	-68.03	-68.55	0.00	0.00	0.00
2,200.00	3.83	247.30	2,197.38	-31.03	-74.19	-74.75	0.00	0.00	0.00
2,300.00	3.83	247.30	2,297.16	-33.61	-80.35	-80.96	0.00	0.00	0.00
2,400.00	3.83	247.30	2,396.94	-36.19	-86.51	-87.17	0.00	0.00	0.00
2,500.00	3.83	247.30	2,496.71	-38.76	-92.67	-93.38	0.00	0.00	0.00
2,600.00	3.83	247.30	2,596.49	-41.34	-98.83	-99.58	0.00	0.00	0.00
2,700.00	3.83	247.30	2,696.27	-43.92	-105.00	-105.79	0.00	0.00	0.00
2,800.00	3.83	247.30	2,796.04	-46.50	-111.16	-112.00	0.00	0.00	0.00
2,900.00	3.83	247.30	2,895.82	-49.07	-117.32	-118.20	0.00	0.00	0.00
3,000.00	3.83	247.30	2,995.60	-51.65	-123.48	-124.41	0.00	0.00	0.00
3,100.00	3.83	247.30	3,095.37	-54.23	-129.64	-130.62	0.00	0.00	0.00
3,200.00	3.83	247.30	3,195.15	-56.80	-135.80	-136.83	0.00	0.00	0.00
3,300.00	3.83	247.30	3,294.93	-59.38	-141.96	-143.03	0.00	0.00	0.00
3,400.00	3.83	247.30	3,394.70	-61.96	-148.12	-149.24	0.00	0.00	0.00
3,500.00	3.83	247.30	3,494.48	-64.53	-154.28	-155.45	0.00	0.00	0.00
3,600.00	3.83	247.30	3,594.26	-67.11	-160.44	-161.65	0.00	0.00	0.00
3,700.00	3.83	247.30	3,694.03	-69.69	-166.60	-167.86	0.00	0.00	0.00
3,800.00	3.83	247.30	3,793.81	-72.26	-172.76	-174.07	0.00	0.00	0.00
3,900.00	3.83	247.30	3,893.59	-74.84	-178.92	-180.28	0.00	0.00	0.00
4,000.00	3.83	247.30	3,993.37	-77.42	-185.08	-186.48	0.00	0.00	0.00
4,100.00	3.83	247.30	4,093.14	-80.00	-191.24	-192.69	0.00	0.00	0.00
sussex									
4,151.37	3.83	247.30	4,144.39	-81.32	-194.41	-195.88	0.00	0.00	0.00
4,200.00	3.83	247.30	4,192.92	-82.57	-197.40	-198.90	0.00	0.00	0.00
4,300.00	3.83	247.30	4,292.70	-85.15	-203.56	-205.10	0.00	0.00	0.00
4,400.00	3.83	247.30	4,392.47	-87.73	-209.73	-211.31	0.00	0.00	0.00
4,500.00	3.83	247.30	4,492.25	-90.30	-215.89	-217.52	0.00	0.00	0.00
4,600.00	3.83	247.30	4,592.03	-92.88	-222.05	-223.73	0.00	0.00	0.00
4,700.00	3.83	247.30	4,691.80	-95.46	-228.21	-229.93	0.00	0.00	0.00

Database:	EDMDBBW	Local Co-ordinate Reference:	Well Anschutz State 5-62-22-4841C2
Company:	Bill Barrett Corp.	TVD Reference:	Well @ 4706.00usft
Project:	Weld Co., CO	MD Reference:	Well @ 4706.00usft
Site:	Sec.22-T5N-R62W	North Reference:	True
Well:	Anschutz State 5-62-22-4841C2	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
4,800.00	3.83	247.30	4,791.58	-98.03	-234.37	-236.14	0.00	0.00	0.00
4,900.00	3.83	247.30	4,891.36	-100.61	-240.53	-242.35	0.00	0.00	0.00
Shannon									
4,961.79	3.83	247.30	4,953.01	-102.20	-244.33	-246.18	0.00	0.00	0.00
5,000.00	3.83	247.30	4,991.13	-103.19	-246.69	-248.56	0.00	0.00	0.00
5,100.00	3.83	247.30	5,090.91	-105.76	-252.85	-254.76	0.00	0.00	0.00
5,200.00	3.83	247.30	5,190.69	-108.34	-259.01	-260.97	0.00	0.00	0.00
Start Drop -2.00									
5,227.61	3.83	247.30	5,218.23	-109.05	-260.71	-262.68	0.00	0.00	0.00
5,300.00	2.38	247.30	5,290.52	-110.57	-264.33	-266.33	2.00	-2.00	0.00
5,400.00	0.38	247.30	5,390.48	-111.50	-266.55	-268.57	2.00	-2.00	0.00
Start 500.03 hold at 5419.06 MD									
5,419.06	0.00	0.00	5,409.54	-111.52	-266.61	-268.63	2.00	-2.00	0.00
5,500.00	0.00	0.00	5,490.48	-111.52	-266.61	-268.63	0.00	0.00	0.00
5,600.00	0.00	0.00	5,590.48	-111.52	-266.61	-268.63	0.00	0.00	0.00
5,700.00	0.00	0.00	5,690.48	-111.52	-266.61	-268.63	0.00	0.00	0.00
5,800.00	0.00	0.00	5,790.48	-111.52	-266.61	-268.63	0.00	0.00	0.00
5,900.00	0.00	0.00	5,890.48	-111.52	-266.61	-268.63	0.00	0.00	0.00
Start Build 12.00									
5,919.09	0.00	0.00	5,909.57	-111.52	-266.61	-268.63	0.00	0.00	0.00
5,925.00	0.71	88.94	5,915.48	-111.52	-266.57	-268.59	12.00	12.00	0.00
5,950.00	3.71	88.94	5,940.46	-111.50	-265.61	-267.63	12.00	12.00	0.00
5,975.00	6.71	88.94	5,965.35	-111.46	-263.34	-265.36	12.00	12.00	0.00
6,000.00	9.71	88.94	5,990.10	-111.39	-259.77	-261.79	12.00	12.00	0.00
6,025.00	12.71	88.94	6,014.62	-111.30	-254.91	-256.93	12.00	12.00	0.00
6,050.00	15.71	88.94	6,038.85	-111.19	-248.78	-250.79	12.00	12.00	0.00
6,075.00	18.71	88.94	6,062.73	-111.05	-241.38	-243.40	12.00	12.00	0.00
Sharon Springs									
6,096.45	21.28	88.94	6,082.88	-110.92	-234.05	-236.06	12.00	12.00	0.00
6,100.00	21.71	88.94	6,086.18	-110.89	-232.75	-234.76	12.00	12.00	0.00
6,125.00	24.71	88.94	6,109.16	-110.71	-222.90	-224.91	12.00	12.00	0.00
6,150.00	27.71	88.94	6,131.59	-110.51	-211.86	-213.87	12.00	12.00	0.00
6,175.00	30.71	88.94	6,153.40	-110.28	-199.67	-201.67	12.00	12.00	0.00
6,200.00	33.71	88.94	6,174.55	-110.04	-186.34	-188.35	12.00	12.00	0.00
Niobrara									
6,219.03	35.99	88.94	6,190.17	-109.84	-175.47	-177.47	12.00	12.00	0.00
6,225.00	36.71	88.94	6,194.98	-109.77	-171.93	-173.93	12.00	12.00	0.00
6,250.00	39.71	88.94	6,214.62	-109.49	-156.47	-158.47	12.00	12.00	0.00
A Chalk									
6,274.07	42.60	88.94	6,232.74	-109.19	-140.64	-142.63	12.00	12.00	0.00
6,275.00	42.71	88.94	6,233.43	-109.18	-140.01	-142.00	12.00	12.00	0.00
6,300.00	45.71	88.94	6,251.34	-108.86	-122.58	-124.57	12.00	12.00	0.00
6,325.00	48.71	88.94	6,268.32	-108.52	-104.24	-106.23	12.00	12.00	0.00
6,350.00	51.71	88.94	6,284.32	-108.17	-85.04	-87.02	12.00	12.00	0.00
B Chalk									
6,359.23	52.82	88.94	6,289.97	-108.03	-77.73	-79.72	12.00	12.00	0.00
6,375.00	54.71	88.94	6,299.29	-107.80	-65.02	-67.00	12.00	12.00	0.00
6,400.00	57.71	88.94	6,313.20	-107.41	-44.25	-46.23	12.00	12.00	0.00
6,425.00	60.71	88.94	6,325.99	-107.02	-22.78	-24.76	12.00	12.00	0.00
6,450.00	63.71	88.94	6,337.65	-106.61	-0.67	-2.64	12.00	12.00	0.00
6,475.00	66.71	88.94	6,348.13	-106.19	22.02	20.05	12.00	12.00	0.00
6,500.00	69.71	88.94	6,357.41	-105.76	45.23	43.26	12.00	12.00	0.00
Top C Target									

Database:	EDMDBBW	Local Co-ordinate Reference:	Well Anschutz State 5-62-22-4841C2
Company:	Bill Barrett Corp.	TVD Reference:	Well @ 4706.00usft
Project:	Weld Co., CO	MD Reference:	Well @ 4706.00usft
Site:	Sec.22-T5N-R62W	North Reference:	True
Well:	Anschutz State 5-62-22-4841C2	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
6,524.11	72.60	88.94	6,365.19	-105.34	68.04	66.08	12.00	12.00	0.00	
6,525.00	72.71	88.94	6,365.46	-105.32	68.89	66.93	12.00	12.00	0.00	
6,550.00	75.71	88.94	6,372.26	-104.88	92.94	90.98	12.00	12.00	0.00	
6,575.00	78.71	88.94	6,377.79	-104.43	117.31	115.36	12.00	12.00	0.00	
6,600.00	81.71	88.94	6,382.05	-103.97	141.94	139.99	12.00	12.00	0.00	
6,625.00	84.71	88.94	6,385.00	-103.52	166.76	164.81	12.00	12.00	0.00	
6,650.00	87.71	88.94	6,386.65	-103.06	191.69	189.76	12.00	12.00	0.00	
Start 9789.73 hold at 6674.94 MD - 7" Csg.										
6,674.94	90.70	88.94	6,387.00	-102.59	216.62	214.69	12.00	12.00	0.00	
6,700.00	90.70	88.94	6,386.69	-102.13	241.68	239.75	0.00	0.00	0.00	
6,800.00	90.70	88.94	6,385.47	-100.29	341.65	339.74	0.00	0.00	0.00	
6,900.00	90.70	88.94	6,384.24	-98.44	441.63	439.73	0.00	0.00	0.00	
7,000.00	90.70	88.94	6,383.01	-96.59	541.60	539.73	0.00	0.00	0.00	
7,100.00	90.70	88.94	6,381.79	-94.75	641.58	639.72	0.00	0.00	0.00	
7,200.00	90.70	88.94	6,380.56	-92.90	741.56	739.71	0.00	0.00	0.00	
7,300.00	90.70	88.94	6,379.34	-91.05	841.53	839.70	0.00	0.00	0.00	
7,400.00	90.70	88.94	6,378.11	-89.21	941.51	939.70	0.00	0.00	0.00	
7,500.00	90.70	88.94	6,376.89	-87.36	1,041.48	1,039.69	0.00	0.00	0.00	
7,600.00	90.70	88.94	6,375.66	-85.51	1,141.46	1,139.68	0.00	0.00	0.00	
7,700.00	90.70	88.94	6,374.43	-83.67	1,241.43	1,239.67	0.00	0.00	0.00	
7,800.00	90.70	88.94	6,373.21	-81.82	1,341.41	1,339.67	0.00	0.00	0.00	
7,900.00	90.70	88.94	6,371.98	-79.97	1,441.38	1,439.66	0.00	0.00	0.00	
8,000.00	90.70	88.94	6,370.76	-78.13	1,541.36	1,539.65	0.00	0.00	0.00	
8,100.00	90.70	88.94	6,369.53	-76.28	1,641.33	1,639.64	0.00	0.00	0.00	
8,200.00	90.70	88.94	6,368.31	-74.43	1,741.31	1,739.64	0.00	0.00	0.00	
8,300.00	90.70	88.94	6,367.08	-72.59	1,841.29	1,839.63	0.00	0.00	0.00	
8,400.00	90.70	88.94	6,365.85	-70.74	1,941.26	1,939.62	0.00	0.00	0.00	
8,500.00	90.70	88.94	6,364.63	-68.90	2,041.24	2,039.61	0.00	0.00	0.00	
8,600.00	90.70	88.94	6,363.40	-67.05	2,141.21	2,139.61	0.00	0.00	0.00	
8,700.00	90.70	88.94	6,362.18	-65.20	2,241.19	2,239.60	0.00	0.00	0.00	
8,800.00	90.70	88.94	6,360.95	-63.36	2,341.16	2,339.59	0.00	0.00	0.00	
8,900.00	90.70	88.94	6,359.73	-61.51	2,441.14	2,439.58	0.00	0.00	0.00	
9,000.00	90.70	88.94	6,358.50	-59.66	2,541.11	2,539.58	0.00	0.00	0.00	
9,100.00	90.70	88.94	6,357.27	-57.82	2,641.09	2,639.57	0.00	0.00	0.00	
9,200.00	90.70	88.94	6,356.05	-55.97	2,741.06	2,739.56	0.00	0.00	0.00	
9,300.00	90.70	88.94	6,354.82	-54.12	2,841.04	2,839.55	0.00	0.00	0.00	
9,400.00	90.70	88.94	6,353.60	-52.28	2,941.02	2,939.55	0.00	0.00	0.00	
9,500.00	90.70	88.94	6,352.37	-50.43	3,040.99	3,039.54	0.00	0.00	0.00	
9,600.00	90.70	88.94	6,351.15	-48.58	3,140.97	3,139.53	0.00	0.00	0.00	
9,700.00	90.70	88.94	6,349.92	-46.74	3,240.94	3,239.52	0.00	0.00	0.00	
9,800.00	90.70	88.94	6,348.69	-44.89	3,340.92	3,339.51	0.00	0.00	0.00	
9,900.00	90.70	88.94	6,347.47	-43.04	3,440.89	3,439.51	0.00	0.00	0.00	
10,000.00	90.70	88.94	6,346.24	-41.20	3,540.87	3,539.50	0.00	0.00	0.00	
10,100.00	90.70	88.94	6,345.02	-39.35	3,640.84	3,639.49	0.00	0.00	0.00	
10,200.00	90.70	88.94	6,343.79	-37.50	3,740.82	3,739.48	0.00	0.00	0.00	
10,300.00	90.70	88.94	6,342.56	-35.66	3,840.79	3,839.48	0.00	0.00	0.00	
10,400.00	90.70	88.94	6,341.34	-33.81	3,940.77	3,939.47	0.00	0.00	0.00	
10,500.00	90.70	88.94	6,340.11	-31.97	4,040.75	4,039.46	0.00	0.00	0.00	
10,600.00	90.70	88.94	6,338.89	-30.12	4,140.72	4,139.45	0.00	0.00	0.00	
10,700.00	90.70	88.94	6,337.66	-28.27	4,240.70	4,239.45	0.00	0.00	0.00	
10,800.00	90.70	88.94	6,336.44	-26.43	4,340.67	4,339.44	0.00	0.00	0.00	
10,900.00	90.70	88.94	6,335.21	-24.58	4,440.65	4,439.43	0.00	0.00	0.00	
11,000.00	90.70	88.94	6,333.98	-22.73	4,540.62	4,539.42	0.00	0.00	0.00	

Database:	EDMDBBW	Local Co-ordinate Reference:	Well Anschutz State 5-62-22-4841C2
Company:	Bill Barrett Corp.	TVD Reference:	Well @ 4706.00usft
Project:	Weld Co., CO	MD Reference:	Well @ 4706.00usft
Site:	Sec.22-T5N-R62W	North Reference:	True
Well:	Anschutz State 5-62-22-4841C2	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
11,100.00	90.70	88.94	6,332.76	-20.89	4,640.60	4,639.42	0.00	0.00	0.00	
11,200.00	90.70	88.94	6,331.53	-19.04	4,740.57	4,739.41	0.00	0.00	0.00	
11,300.00	90.70	88.94	6,330.31	-17.19	4,840.55	4,839.40	0.00	0.00	0.00	
11,400.00	90.70	88.94	6,329.08	-15.35	4,940.52	4,939.39	0.00	0.00	0.00	
11,500.00	90.70	88.94	6,327.86	-13.50	5,040.50	5,039.39	0.00	0.00	0.00	
11,600.00	90.70	88.94	6,326.63	-11.65	5,140.48	5,139.38	0.00	0.00	0.00	
11,700.00	90.70	88.94	6,325.40	-9.81	5,240.45	5,239.37	0.00	0.00	0.00	
11,800.00	90.70	88.94	6,324.18	-7.96	5,340.43	5,339.36	0.00	0.00	0.00	
11,900.00	90.70	88.94	6,322.95	-6.11	5,440.40	5,439.36	0.00	0.00	0.00	
12,000.00	90.70	88.94	6,321.73	-4.27	5,540.38	5,539.35	0.00	0.00	0.00	
12,100.00	90.70	88.94	6,320.50	-2.42	5,640.35	5,639.34	0.00	0.00	0.00	
12,200.00	90.70	88.94	6,319.28	-0.58	5,740.33	5,739.33	0.00	0.00	0.00	
12,300.00	90.70	88.94	6,318.05	1.27	5,840.30	5,839.33	0.00	0.00	0.00	
12,400.00	90.70	88.94	6,316.82	3.12	5,940.28	5,939.32	0.00	0.00	0.00	
12,500.00	90.70	88.94	6,315.60	4.96	6,040.25	6,039.31	0.00	0.00	0.00	
12,600.00	90.70	88.94	6,314.37	6.81	6,140.23	6,139.30	0.00	0.00	0.00	
12,700.00	90.70	88.94	6,313.15	8.66	6,240.20	6,239.30	0.00	0.00	0.00	
12,800.00	90.70	88.94	6,311.92	10.50	6,340.18	6,339.29	0.00	0.00	0.00	
12,900.00	90.70	88.94	6,310.70	12.35	6,440.16	6,439.28	0.00	0.00	0.00	
13,000.00	90.70	88.94	6,309.47	14.20	6,540.13	6,539.27	0.00	0.00	0.00	
13,100.00	90.70	88.94	6,308.24	16.04	6,640.11	6,639.27	0.00	0.00	0.00	
13,200.00	90.70	88.94	6,307.02	17.89	6,740.08	6,739.26	0.00	0.00	0.00	
13,300.00	90.70	88.94	6,305.79	19.74	6,840.06	6,839.25	0.00	0.00	0.00	
13,400.00	90.70	88.94	6,304.57	21.58	6,940.03	6,939.24	0.00	0.00	0.00	
13,500.00	90.70	88.94	6,303.34	23.43	7,040.01	7,039.24	0.00	0.00	0.00	
13,600.00	90.70	88.94	6,302.12	25.28	7,139.98	7,139.23	0.00	0.00	0.00	
13,700.00	90.70	88.94	6,300.89	27.12	7,239.96	7,239.22	0.00	0.00	0.00	
13,800.00	90.70	88.94	6,299.66	28.97	7,339.93	7,339.21	0.00	0.00	0.00	
13,900.00	90.70	88.94	6,298.44	30.82	7,439.91	7,439.21	0.00	0.00	0.00	
14,000.00	90.70	88.94	6,297.21	32.66	7,539.89	7,539.20	0.00	0.00	0.00	
14,100.00	90.70	88.94	6,295.99	34.51	7,639.86	7,639.19	0.00	0.00	0.00	
14,200.00	90.70	88.94	6,294.76	36.35	7,739.84	7,739.18	0.00	0.00	0.00	
14,300.00	90.70	88.94	6,293.53	38.20	7,839.81	7,839.18	0.00	0.00	0.00	
14,400.00	90.70	88.94	6,292.31	40.05	7,939.79	7,939.17	0.00	0.00	0.00	
14,500.00	90.70	88.94	6,291.08	41.89	8,039.76	8,039.16	0.00	0.00	0.00	
14,600.00	90.70	88.94	6,289.86	43.74	8,139.74	8,139.15	0.00	0.00	0.00	
14,700.00	90.70	88.94	6,288.63	45.59	8,239.71	8,239.15	0.00	0.00	0.00	
14,800.00	90.70	88.94	6,287.41	47.43	8,339.69	8,339.14	0.00	0.00	0.00	
14,900.00	90.70	88.94	6,286.18	49.28	8,439.66	8,439.13	0.00	0.00	0.00	
15,000.00	90.70	88.94	6,284.95	51.13	8,539.64	8,539.12	0.00	0.00	0.00	
15,100.00	90.70	88.94	6,283.73	52.97	8,639.62	8,639.12	0.00	0.00	0.00	
15,200.00	90.70	88.94	6,282.50	54.82	8,739.59	8,739.11	0.00	0.00	0.00	
15,300.00	90.70	88.94	6,281.28	56.67	8,839.57	8,839.10	0.00	0.00	0.00	
15,400.00	90.70	88.94	6,280.05	58.51	8,939.54	8,939.09	0.00	0.00	0.00	
15,500.00	90.70	88.94	6,278.83	60.36	9,039.52	9,039.09	0.00	0.00	0.00	
15,600.00	90.70	88.94	6,277.60	62.21	9,139.49	9,139.08	0.00	0.00	0.00	
15,700.00	90.70	88.94	6,276.37	64.05	9,239.47	9,239.07	0.00	0.00	0.00	
15,800.00	90.70	88.94	6,275.15	65.90	9,339.44	9,339.06	0.00	0.00	0.00	
15,900.00	90.70	88.94	6,273.92	67.75	9,439.42	9,439.06	0.00	0.00	0.00	
16,000.00	90.70	88.94	6,272.70	69.59	9,539.39	9,539.05	0.00	0.00	0.00	
16,100.00	90.70	88.94	6,271.47	71.44	9,639.37	9,639.04	0.00	0.00	0.00	
16,200.00	90.70	88.94	6,270.25	73.28	9,739.35	9,739.03	0.00	0.00	0.00	
16,300.00	90.70	88.94	6,269.02	75.13	9,839.32	9,839.03	0.00	0.00	0.00	
16,400.00	90.70	88.94	6,267.79	76.98	9,939.30	9,939.02	0.00	0.00	0.00	

Database:	EDMDBBW	Local Co-ordinate Reference:	Well Anschutz State 5-62-22-4841C2
Company:	Bill Barrett Corp.	TVD Reference:	Well @ 4706.00usft
Project:	Weld Co., CO	MD Reference:	Well @ 4706.00usft
Site:	Sec.22-T5N-R62W	North Reference:	True
Well:	Anschutz State 5-62-22-4841C2	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
TD at 16464.67									
16,464.67	90.70	88.94	6,267.00	78.17	10,003.95	10,003.68	0.00	0.00	0.00

Design Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
- hit/miss target									
- Shape									
Anschutz State 5-62-22-	0.00	0.00	6,267.00	78.17	10,003.95	1,385,047.227	3,339,102.415	40° 23' 2.281 N	104° 16' 57.691 W
- plan hits target center									
- Point									

Casing Points					
Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (")	Hole Diameter (")	
6,674.94	6,387.00	7" Csg.	7	8-3/4	

Formations					
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
4,151.37	4,142.00	sussex		-0.70	88.94
4,961.79	4,950.00	Shannon		-0.70	88.94
6,096.45	6,080.00	Sharon Springs		-0.70	88.94
6,219.03	6,188.00	Niobrara		-0.70	88.94
6,274.07	6,231.00	A Chalk		-0.70	88.94
6,359.23	6,289.00	B Chalk		-0.70	88.94
6,524.11	6,366.00	Top C Target		-0.70	88.94

Plan Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
900.00	900.00	0.00	0.00	Start Build 2.00
1,091.45	1,091.31	-2.47	-5.90	Start 4136.16 hold at 1091.45 MD
5,227.61	5,218.23	-109.05	-260.71	Start Drop -2.00
5,419.06	5,409.54	-111.52	-266.61	Start 500.03 hold at 5419.06 MD
5,919.09	5,909.57	-111.52	-266.61	Start Build 12.00
6,674.94	6,387.00	-102.59	216.62	Start 9789.73 hold at 6674.94 MD
16,464.67	6,267.00	78.17	10,003.95	TD at 16464.67